**WHAT IS CLAIMED IS:**

1. A discharge lamp comprising:

a luminous bulb in which a luminous material is enclosed and a pair of electrodes are opposed in the luminous bulb; and

a pair of sealing portions for sealing a pair of metal foils electrically connected to the pair of electrodes, respectively;

wherein at least one of the pair of metal foils has a twist structure.

2. The discharge lamp of claim 1, wherein the metal foil having a twist structure has a 90° twisted portion.

3. A discharge lamp comprising:

a luminous bulb in which a luminous material is enclosed and a pair of electrodes are opposed in the luminous bulb; and

a pair of sealing portions for sealing a pair of metal foils electrically connected to the pair of electrodes, respectively;

wherein each of the pair of metal foils has an external lead on a side opposite to a side electrically connected to a corresponding electrode of the pair of electrodes,

at least one of the pair of metal foils has a corrugated structure in which the metal foils are corrugated along a longitudinal direction of the metal foils, and

the metal foil having the corrugated structure has at least one wave portion in an area between an end of the electrode and an end of the external lead of the metal foil.

4. The discharge lamp of claim 3, wherein

at least one wave crest of the wave portion is provided in an area on the luminous bulb side from a midpoint of the metal foil in the longitudinal direction of the metal foil (including the midpoint).

5. The discharge lamp of claim 3, wherein

a plurality of wave crests of the wave portion are provided in an area between the end of the electrode and the end of the external lead of the metal foil.

6. A discharge lamp comprising:

a luminous bulb in which a luminous material is enclosed and a pair of electrodes are opposed in the luminous bulb; and

a pair of sealing portions for sealing a pair of metal foils electrically connected to the pair of electrodes, respectively;

wherein a first direction perpendicular to a thickness direction of one metal foil of the pair of metal foils is different from a second direction perpendicular to a thickness direction of the other metal foil.

7. The discharge lamp of claim 6, wherein the first direction and the second direction are dislocated by 1° to 90°.

8. The discharge lamp of claim 6, wherein at least one of the pair of metal foils has a twist structure.

9. The discharge lamp of claim 6, wherein at least one of the pair of metal foils has a corrugated structure.

10. The discharge lamp of claim 9, wherein the metal foil having a corrugated structure has at least one bend portion for dispersing directions of internal stresses of the metal foil in the sealing portion.

11. A discharge lamp comprising:

a luminous bulb in which a luminous material is enclosed and a pair of electrodes are opposed in the luminous bulb; and

a pair of sealing portions for sealing a pair of metal foils electrically connected to the pair of electrodes, respectively;

wherein each of the pair of metal foils has an external lead on a side opposite to a side electrically connected to a corresponding electrode of the pair of electrodes, and

in at least one of the pair of metal foils, an area of the metal foil projected from the luminous bulb side to the external lead side is larger than an area of an end face of the metal foil.

12. The discharge lamp of any one of claims 1, 3, 6, and 11,

wherein each of the pair of metal foils is tightly attached to a glass portion extending from the luminous bulb, and

each of the pair of metal foils is a molybdenum foil.

13. A discharge lamp comprising:

a luminous bulb in which a luminous material is enclosed and a pair of electrodes are opposed in the luminous bulb; and

a pair of sealing portions for sealing a pair of molybdenum foils electrically connected to the pair of electrodes, respectively;

wherein each of the pair of molybdenum foils has an external lead made of molybdenum on a side opposite to a side electrically connected to a corresponding electrode of the pair of electrodes, and

at least one of the pair of molybdenum foils is integrally formed with the external lead.

14. A discharge lamp comprising:

a luminous bulb in which a luminous material is enclosed and a pair of electrodes are opposed in the luminous bulb; and

a pair of sealing portions for sealing a pair of molybdenum foils electrically connected to the pair of electrodes, respectively;

wherein each of the pair of molybdenum foils has an external lead made of molybdenum on a side opposite to a side electrically connected to a corresponding electrode of the pair of electrodes, and

at least one of the pair of molybdenum foils is plane-welded to the external lead in which a portion to be connected to the molybdenum foil is plane-shaped.

15. A discharge lamp comprising:

a luminous bulb in which a luminous material is enclosed and a pair of electrodes are opposed in the luminous bulb; and

a pair of sealing portions for sealing a pair of molybdenum foils electrically connected to the pair of electrodes, respectively;

wherein at least one of the pair of molybdenum foils has a molybdenum rod extending from the molybdenum foil to the luminous bulb, and

the molybdenum rod is connected to either one of the pair of electrodes by welding.

16. The discharge lamp of any one of claims 1, 3, 6, 11, 13, 14, and 15, wherein each of the pair of sealing portion has a shrink seal structure.

17. The discharge lamp of any one of claims 1, 3, 6, 11, 13, 14, and 15, wherein the luminous material comprises at least mercury.

18. A lamp unit comprising the discharge lamp of any one of claims 1, 3, 6, 11, 13, 14, and 15 and a reflecting mirror for reflecting light emitted from the discharge lamp.

19. A method for producing a discharge lamp comprising the steps of:

(a) preparing a pipe for a discharge lamp including a luminous bulb portion and a side tube portion extending from the luminous bulb portion; and an electrode assembly including a metal foil,

an electrode connected to the metal foil, and an external lead connected to the metal foil on a side opposite to a side connected to the electrode;

(b) inserting the electrode assembly into the side tube portion so that an end of the electrode is positioned inside the luminous bulb portion;

(c) attaching the side tube portion to the metal foil by reducing a pressure in the pipe for a discharge lamp and heating and softening the side tube portion after the step (b); and

(d) forming a twist structure or a corrugated structure in the metal foil by applying an external force to the metal foil after the step (b).

20. The method for producing a discharge lamp of claim 19, wherein after the side tube portion and the metal foil are attached in the step (c), the step (d) is performed in a state where a part of the attached side tube portion is heated and softened.

21. The method for producing a discharge lamp of claim 19, wherein the step (d) is performed in a state where a part of the side tube portion and a part of the metal foil are attached by the step (c), and thereafter the step (c) is performed again.

22. The method for producing a discharge lamp of claim 19, wherein in the step (a), the electrode assembly is prepared in which the metal foil is a molybdenum foil, and a molybdenum tape for fixing the electrode assembly in the side tube portion

is provided in a part of the external lead,

in the step (b), the molybdenum tape is engaged in an inner surface of the side tube portion so that the end of the electrode is positioned in the luminous bulb portion,

in the step (c), the side tube portion and the metal foil are attached while rotating the pipe for a discharge lamp, and

in the step (d), the twist structure or the corrugated structure is formed in the metal foil by making a difference in a rotation speed of the pipe for a discharge lamp between the electrode side and the external lead side in the metal foil, or by contracting the side tube portion so that a portion on the electrode side and a portion on the external lead side in the metal foil are brought relatively close to each other.